MATERIAL SAFETY DATA SHEET
Natro-Cel DBEA-A

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME: Natro-Cel DBEA-A
CHEMICAL NAME: Dibutoxyethyl Adipate on Silicon Dioxide

HMIS RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

Company: NATROCHEM, INC.
P.O. Box 1205
Savannah, GA 31402-1205

Transportation Emergencies:
CHEMTREC (U.S.A.): (800) 424-9300 (24 hours)
CHEMTREC (International): (202) 483-7616 (24 hours, call collect)
Product Information: (912) 236-4464 (EST, 8:00AM – 4:00PM M-F)

2. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT NAME	CAS#	PERCENT
Dibutoxyethyl Adipate	141-18-4	72
Silicon Dioxide	112926-00-8	28

Contains no detectable crystalline silica (detection limit <0.01% by weight).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION! Dust may be irritating to eyes and upper respiratory tract. Prolonged or repeated skin contact may cause irritation due to drying action.

Precautions: Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid prolonged, repeated or excessive inhalation. Use only with adequate ventilation. Ventilation must be sufficient to limit employee exposure to this product below permissible exposure limits. Wear respiratory protection when dust exposure is above permissible exposure limits. Wash thoroughly every day after work. Do not eat, drink or smoke in work area.

4. FIRST AID MEASURES

INHALATION: Remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

EYE CONTACT: Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room or physician as further treatment may be necessary.

SKIN CONTACT: Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room or physician as further treatment may be necessary.

INGESTION: Gently wipe or rinse the inside of the mouth with water. Sips of water can be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician for treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: 360˚F (COC)

EXTINGUISHING MEDIA: Water spray, foam, CO_2, or dry chemical

SPECIAL FIREFIGHTING PROCEDURES: Wear SCBA and protective clothing. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a spill or leak has not ignited, use water spray to disperse the vapors.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate protective clothing as described in Section 8. Vacuum spilled material and place in a closed plastic bag for disposal.

7. HANDLING AND STORAGE

Store in a cool, dry, ventilated area away from direct sunlight. When transferring material use proper grounding to avoid electrical sparks. Product surface alterations caused by calcining or mixing with additives may alter toxicological properties.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits: 8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL)

OSHA: 6 mg/m^3 (total dust) TWA.

ACGIH: 10 mg/m^3 (total amorphous dust) TWA. 3 mg/m^3 (respirable nuisance particulate) TWA.

RESPIRATORY PROTECTION: Use NIOSH approve dust filter respirator for exposure above permissible exposure limits. The respiratory use limitations made by NIOSH or the manufacturer must be observed.

VENTILATION: General or local exhaust sufficient to maintain employee exposure below permissible exposure limits.

EYE AND FACE PROTECTION: If eye exposure to powder is likely, use tight fitting protective goggles.

PROTECTIVE GLOVES: Cloth, leather or rubber.

OTHER PROTECTIVE EQUIPMENT: Boots, aprons, or chemical suits should be used when necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: ND
VAPOR DENSITY (Air=1): ND
SPECIFIC GRAVITY (Water = 1): 0.995
FREEZING/MELTING POINT: ~24˚F
SOLUBILITY (wt.% in water): Insoluble
% VOLATILE: ND
VAPOR PRESSURE: ND
EVAPORATION RATE: ND
PHYSICAL STATE: powder
ODOR: slight organic
COLOR: off-white

10. STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: Avoid calcining temperatures (>800°C) which may result in crystalline formation. Mixing with additives and alteration of product properties may alter toxicological properties. Avoid contact with strong oxidizers and strong bases.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS: CO_x

11. TOXICOLOGICAL INFORMATION

SKIN IRRITATION: Mildly irritating.
EYE IRRITATION: Mildly irritating.

CARCINOGENICITY: This product is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, ACGIH, or OSHA.

EFFECTS OF OVEREXPOSURE:

ACUTE: Excessive contact with powder can cause drying of mucous membranes of nose, eyes, and throat due to absorption of moisture and oils. This material can also cause nasal irritation and nosebleeds. Eye contact with powder can result in mild irritation. Heated vapors and mists may irritate eyes and upper respiratory tract.

CHRONIC: Repeated contact may cause irritation of skin.

An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had bee exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation to levels of precipitated silica dust of up to 126 mg/m^3 per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of the studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silica. PPG recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

IARC reviewed the data on amorphous silica in 1996 and concluded there was inadequate evidence from both epidemiology and experimental studies that amorphous silica is a carcinogenic risk factor. The organization concluded that amorphous silica is in Group 3.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Do not allow product to reach ground water, water course or sewage systems.
EC_0: >1000 ppm (daphnia magna) (24-hour acute immobilization test) Silica: Slight to very low toxicity.
EC_0: >10,000 ppm (rainbow trout) (4-day static study) Silica: Slight to very low toxicity.
EC_0: >10,000 ppm (freshwater fish (96-hour static acute toxicity study) Silica: Slight to very low toxicity.

ENVIRONMENTAL FATE:
No data at this time.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
Waste from this product may be disposed of in a sanitary landfill if state and local regulations permit. Care should be taken to avoid creation of dust during disposal operations.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not regulated

15. REGULATORY INFORMATION

USA TSCA: Synthetic amorphous silica is listed on the TSCA Inventory as its general CAS# 7631-86-9
EUROPE EINECS: Synthetic amorphous silica is listed on EINECS 231-545-4 as its general CAS#7631-86-9
CANADA DSL: This product and/or all of its components are listed on the Canadian DSL.
AUSTRALIA AICS: All components of this product are listed on AICS.
KOREA ECL: All components of this product are listed on KECI.
JAPAN MITI (ENCS): All components of this product are listed on the ENCS.
PHILIPPINES PICCS: All components of this product are listed on the (PICCS).

SARA TITLE III:
SARA (311,312) Hazard Class: Silicon Dioxide – Acute Health Hazard.
SARA (313) Chemicals: Dibutoxy Adipate (certain glycol ethers).
SARA Section 302: Not listed as an Extremely Hazardous Substance.

CERCLA: Not listed.

16. OTHER INFORMATION

Issue Date: July 3, 2007 Revision Note: Original Isue
Prepared by: Bo Culjan

NA = Not applicable ND = Not determined NDA = No Data Available NE = Not established